

Notice of Allowability

Application No.

10/777,071

Examiner

Savitri Mulpuri

Applicant(s)

SATO ET AL.

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to pre.amdt(2/13/2004)exa.amdt(5/27/04).
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ The drawings filed on 13 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

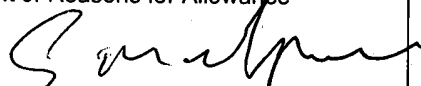
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/13/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Savitri Mulpuri
Primary Examiner
Art Unit: 2812

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Marquez on 5/28/04.

The application has been amended as follows:

In claim 1, line 10 replace "a" with ---the---

In claim 1, line 11 after "structure" delete "on a plate member disposed"

In claim 2, line 2 replace "a" with -the—

In claim 2, line 3 replace "a" with --- the—

In claim 3, line 2 replace "the plate member is heated and a" with ---the—

In claim 6, line 6 after replace "a" with -the—

In claim 8, line 3 after "method" add---further—

In claim 8, line 7 replace "a" with -the—

In claim 8, line 8 replace "a" with ---the—

In claim 9, line 4 delete "and"

In claim 9, line 10 replace "a" with ---the—

In claim 9, line 10-11 delete "on a plate member disposed "

In claim 10, line 10 replace "a" with ---the—

In claim 10, line 11 delete "on a plate member"

In claim 10, line 16 replace "a" with -the—

In claim 11, line 5 replace "a" with -the—

In claim 12, line 6 replace "a" with ---the—

In claim 12, line 10 replace "a" with -the—

In claim 13, line 6 replace "a" with -the—

In claim 14, line 9 replace "a" with -the—

In claim 14, line 11 add ----, wherein the semiconductor material---

In claim 14, line 12 replace "a" with -the—

In claim 15, line 10 replace "a" with -the—

In claim 15, line 10 delete "on a plate member disposed"

In claim 15, line 16 after "film" add ---, wherein the semiconductor film---

In claim 15, line 17 replace "a" with -the—

In claim 15, line 17 after "substrate" add --, and—

In claim 15, line 18 replace "a" with -the--

The following is an examiner's statement of reasons for allowance: Prior art neither teach nor suggest forming layered film with first second and third compound semiconductor layers, wherein second compound layer comprises Al-containing material (as recited in claim 1, 10) or first cladding layer active layer and second cladding layer and at least first cladding layer comprises Al-containing material (as recited in claim 10 and 15), selectively etching layered film and to form three-dimensional structure or stripe having sidewall portion in which Al-containing material is exposed to at least part of the side wall portion, placing three-dimensional or stripe

structure in crystal growing apparatus and cleaning the sidewall by introducing halogen element-containing gas and then burying a region adjacent to the sidewall with crystal-grown semiconductor material in the crystal growing apparatus.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.

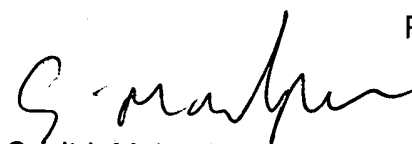
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Savitri Mulpuri whose telephone number is 571-272-1677. The examiner can normally be reached on Mon-Fri from 8 to 4.30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on 571-272-1679. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'S. Mulpuri', is written above the printed name.

Savitri Mulpuri
Primary Examiner
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